=> FILE REG
FILE 'REGISTRY' ENTERED AT 09:42:14 ON 16 SEP 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 15 SEP 2003 HIGHEST RN 586329-53-5
DICTIONARY FILE UPDATES: 15 SEP 2003 HIGHEST RN 586329-53-5

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

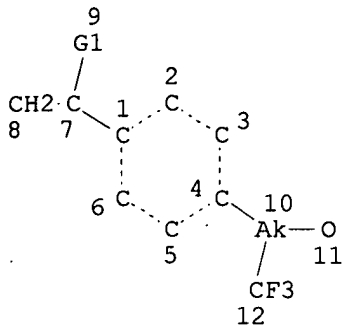
=> FILE HCAPLUS
FILE 'HCAPLUS' ENTERED AT 09:42:18 ON 16 SEP 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 16 Sep 2003 VOL 139 ISS 12
FILE LAST UPDATED: 15 Sep 2003 (20030915/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> D QUE
L3 STR

structure 1 query covering formulas 1, 3, 6, 8, 10



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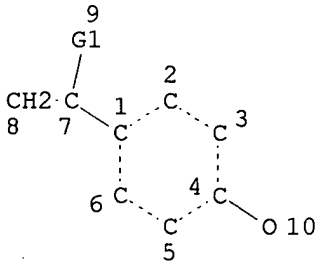
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE
L4 STR

structure 2 query covering 2, 4, 5, 7, 9, 11, 12



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NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE
L9 SCR 2043
L11 7 SEA FILE=REGISTRY SSS FUL L3 AND L4 AND L9
L12 2 SEA FILE=HCAPLUS ABB=ON L11

7 polymers containing structure 1 and structure 2

=> D ALL L12 1-2 HITSTR

2 CA references from the 7 polymers

L12 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2002:808163 HCAPLUS
DN 137:317940
TI Material and method for forming pattern from polyhydroxystyrene derivative-based resists

IN Kishimura, Shinya; Endo, Masataka; Sasakgo, Masaru; Shirai, Masamitsu; Tsunooka, Masahiro
PA Matsushita Electric Industrial Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-039
ICS C08F212-14; C08F220-42; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2002311589	A2	20021023	JP 2001-112175	20010411
US 2002197557	A1	20021226	US 2002-33899	20020103
PRAI JP 2001-112175	A	20010411		

AB The title material comprises a photoacid and a polymer having units of [H2CCR1{(p-C6H4)(CH2)mCOR2(CF3)2}] and [H2CCR3CN] (R1,2 = alkyl, Cl- or F-contg. alkyl; R3 = protective group leaving upon reacting with acid; and m = integer 0-5). The process uses light having 1-30 nm or 110-180 nm for an exposure step. The resist exhibited an improved soly. for a developer, and an improved dry etching resistance due to the benzene rings.

ST polyhydroxystyrene soft x ray resist; photoresist polyhydroxystyrene photoacid

IT Photoresists
(patterning of polyhydroxystyrene-based resist)

IT X-ray resists
(soft-; patterning of polyhydroxystyrene-based resist)

IT 471856-93-6 471856-98-1 **471857-01-9 471857-04-2**
RL: TEM (Technical or engineered material use); USES (Uses)
(patterning of polyhydroxystyrene-based resist)

IT 66003-78-9, Triphenylsulfoniumtriflate
RL: CAT (Catalyst use); USES (Uses)
(photoacid; patterning of polyhydroxystyrene-based resist)

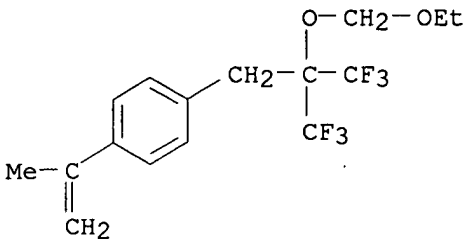
IT **471857-01-9 471857-04-2**
RL: TEM (Technical or engineered material use); USES (Uses)
(patterning of polyhydroxystyrene-based resist)

RN 471857-01-9 HCAPLUS Registry number for polymer

CN 2-Propenenitrile, 2-methyl-, polymer with 1-[2-(ethoxymethoxy)-3,3,3-trifluoro-2-(trifluoromethyl)propyl]-4-(1-methylethenyl)benzene and 4-(1-methylethenyl)phenol (9CI) (CA INDEX NAME)

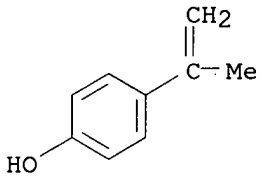
CM 1

CRN 471857-00-8 — component registry number for this monomer (next page) in the polymer
CMF C16 H18 F6 O2



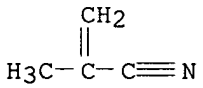
CM 2

CRN 4286-23-1 — 2nd component of polymer
CMF C9 H10 O — component registry number for this monomer



CM 3 — 3rd component of polymer

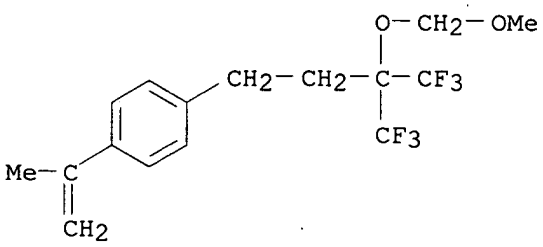
CRN 126-98-7 — component registry number for this monomer
CMF C4 H5 N



RN 471857-04-2 HCAPLUS
CN Benzonitrile, 4-(1-methylethenyl)-, polymer with 4-(1-methylethenyl)phenol and 1-(1-methylethenyl)-4-[4,4,4-trifluoro-3-(methoxymethoxy)-3-(trifluoromethyl)butyl]benzene (9CI) (CA INDEX NAME)

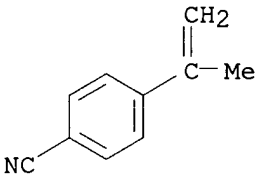
CM 1

CRN 471857-03-1
CMF C16 H18 F6 O2



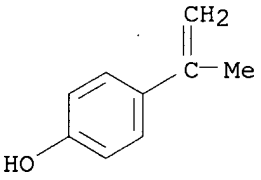
CM 2

CRN 19956-03-7
CMF C10 H9 N



CM 3

CRN 4286-23-1
CMF C9 H10 O



L12 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2002:802791 HCAPLUS
DN 137:317930
TI Material and method for forming pattern from polyhydroxystyrene derivative resist
IN Kishimura, Shinya; Endo, Masataka; Sasago, Masaru; Shirai, Masamitsu; Tsunooka, Masahiro
PA Matsushita Electric Industrial Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-039
ICS C08F212-14
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

applicant

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2002311588	A2	20021023	JP 2001-112174	20010411
US 2003113670	A1	20030619	US 2002-34366	20020103
PRAI JP 2001-112174	A	20010411		

AB The title material comprises a photoacid and a polymer having units of [H2CCR1{(p-C6H4)(CH2)mCOH(CF3)2}] and [H2CCR2{(p-C6H4)OR3}] (R1,2 = alkyl, Cl- or F-contg. alkyl; R3 = protective group leaving upon reacting with

acid; and m = integer 0-5). The process uses light having 1-30 nm or 110-180 nm for an exposure step. The resist exhibited an improved soly. for a developer, and an improved dry etching resistance due to the benzene rings.

ST polyhydroxystyrene soft x ray resist; photoresist polyhydroxystyrene photoacid

IT Photoresists
(polyhydroxystyrene derivs. for)

IT X-ray resists
(soft-; polyhydroxystyrene derivs. for)

IT **471864-13-8 471864-15-0 471864-17-2**
471864-19-4 471864-20-7
RL: TEM (Technical or engineered material use); USES (Uses)
(patterning of resist from)

IT 66003-78-9, Triphenylsulfoniumtriflate
RL: CAT (Catalyst use); USES (Uses)
(photoacid in polyhydroxystyrene-based resist)

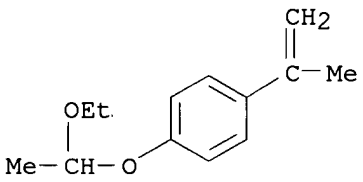
IT **471864-13-8 471864-15-0 471864-17-2**
471864-19-4 471864-20-7
RL: TEM (Technical or engineered material use); USES (Uses)
(patterning of resist from)

RN 471864-13-8 HCAPLUS

CN Benzenemethanol, 4-(1-methylethenyl)-.alpha.,.alpha.-bis(trifluoromethyl)-, polymer with 1-(1-ethoxyethoxy)-4-(1-methylethenyl)benzene (9CI) (CA INDEX NAME)

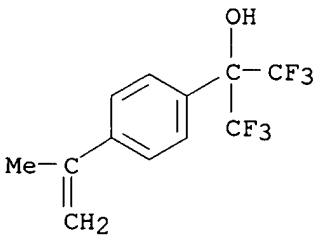
CM 1

CRN 216573-39-6
CMF C13 H18 O2



CM 2

CRN 120721-71-3
CMF C12 H10 F6 O

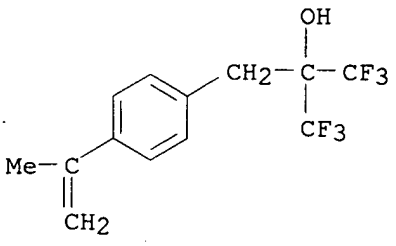


RN 471864-15-0 HCAPLUS

CN Carbonic acid, 1,1-dimethylethyl 4-(1-methylethenyl)phenyl ester, polymer with 4-(1-methylethenyl)-.alpha.,.alpha.-bis(trifluoromethyl)benzeneethanol and 4-(1-methylethenyl)phenol (9CI) (CA INDEX NAME)

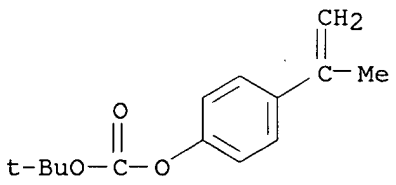
CM 1

CRN 471864-14-9
CMF C13 H12 F6 O



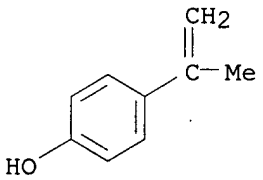
CM 2

CRN 84775-27-9
CMF C14 H18 O3



CM 3

CRN 4286-23-1
CMF C9 H10 O

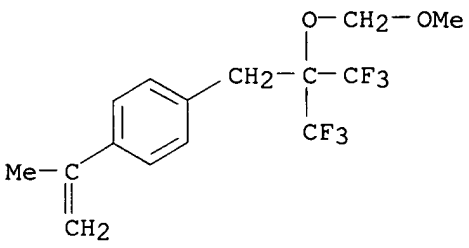


RN 471864-17-2 HCAPLUS
CN 2H-Pyran, tetrahydro-2-[4-(1-methylethenyl)phenoxy]-, polymer with 1-(1-methylethenyl)-4-[3,3,3-trifluoro-2-(methoxymethoxy)-2-(trifluoromethyl)propyl]benzene (9CI) (CA INDEX NAME)

CM 1

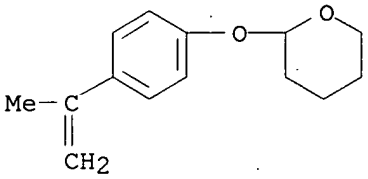
CRN 471864-16-1

CMF C15 H16 F6 O2



CM 2

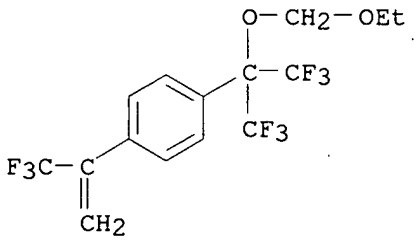
CRN 132853-32-8
CMF C14 H18 O2



RN 471864-19-4 HCAPLUS
CN Phenol, 4-[1-(trifluoromethyl)ethenyl]-, polymer with 1-[1-(ethoxymethoxy)-2,2,2-trifluoro-1-(trifluoromethyl)ethyl]-4-[1-(trifluoromethyl)ethenyl]benzene (9CI) (CA INDEX NAME)

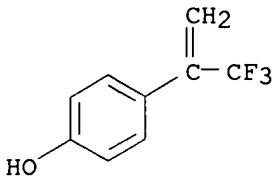
CM 1

CRN 471864-18-3
CMF C15 H13 F9 O2



CM 2

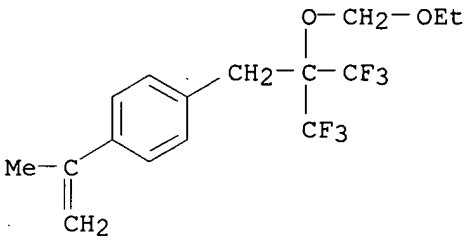
CRN 293753-26-1
CMF C9 H7 F3 O



RN 471864-20-7 HCAPLUS
CN Phenol, 4-(1-methylethenyl)-, polymer with 1-(1-ethoxyethoxy)-4-(1-methylethenyl)benzene and 1-[2-(ethoxymethoxy)-3,3,3-trifluoro-2-(trifluoromethyl)propyl]-4-(1-methylethenyl)benzene (9CI) (CA INDEX NAME)

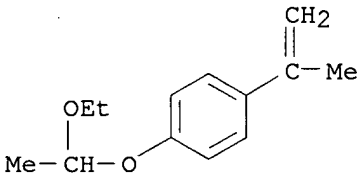
CM 1

CRN 471857-00-8
CMF C16 H18 F6 O2



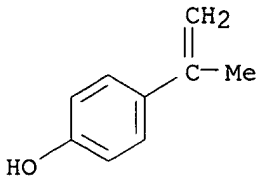
CM 2

CRN 216573-39-6
CMF C13 H18 O2



CM 3

CRN 4286-23-1
CMF C9 H10 O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